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These abstracts of important current articles, patents, and books are compiled by the LTF Research Department. They represent statements made by the authors and do not express the opinions of the abstractors or of LTF.

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Information on LTF publications, audio-visuals, the LTF Color Chart, Sensitivity Guide, and LTF instruments, can be obtained from the Lithographic Technical Foundation, 131 East 39th Street, New York 16, N.Y.

Requests for information about seminars, technical problems, literature searches, and technical and research consulting services should be addressed to LTF Research Department.

LITHOGRAPHIC ABSTRACTS, MAY 1961

PHOTOGRAPHY, TONE & COLOR CORRECTION

655,302

MEASURING QUALITY AND TONES OF COLOR, Frank Preucil. Proceedings of the 10th Annual Conference Research and Engineering Council of the Graphic Arts Industry, Dayton, May, 1960, pages 48-59 (12 pages). "Quality" is difficult to define, making its control more difficult as a result. LTF has made efforts to isolate separate factors contributing to quality and finding means of measuring those factors. Some of these are Acuity, Granularity and Tone Reproduction. Research work on the measurement of these factors, particularly on tone reproduction and color, are described.

771.447

THE COLORTRAN LIGHTING SYSTEM. Milton Forman. Modern Lithography 28, No. 12, December 1960, pp. 48-9 (2 pages) . Description of a lighting system for copy boards based on use of ordinary light bulbs operated at about 185 volts to give greater light output and higher color temperature at the expense of bulb life. Bulbs are mounted in long troughs to give even lighting over a large area. 3 Illustrations and 2 Charts.

771.351

FINDING FOCAL LENGTH FOR ENLARGEMENTS. Herbert P. Paschel. Modern Lithography 28, No. 12, December 1960, pp. 59, 61, 113 (3 pages). Answer to question about finding focal length of lens to use on camera to give maximum enlargement. Question is answered with formula and a table giving enlargement and reductions possible with various focal length lenses at a variety of settings. Adequate explanation accompanies formula and table.

771.43

DEVELOPMENT DETERMINATION BY INFRARED DENSITOMETRY. Conrad A. Strub and Richard Burkhart. Journal of the Society of Motion Pictures and Television Engineers 69, No.12, December, 1960, pp. 871-873 (3 pages). Infrared radiation has been utilized in many fields of investigation. The research presented here was performed to investigate the application of infrared densitometry as a feasible and valid method of development determination. An apparatus was modified to emit and detect infrared radiation. Partially processed films were metered by the application of infrared densitometry and an empirical formula was derived to calculate the corresponding fixed-out white-light densities. The D-log E curves were plotted from the calculated data and comparison studies were made with curves drawn in the conventional manner. When the calculated data were derived from an empirical power series formula, the resulting sensitometric data were agreeable within acceptable limits.

771.317

MODERN DARKROOM CAMERAS. Frank H. Smith., The Lithographer and Offset Printer 56, No. 12, December 1960, pp. 22-23 (2 pages). Certain advantages of the darkroom type camera, as in masking and the use of the contact screen, are cited. Various means of controlling focus, visual, variable lead screw, calculators and scales are discussed, as in the problem of image reversal. The "roof mirror" system of Warmisham for reversal is mentioned favorably. Other details of such cameras are discussed.

655.302

GRAY SCALES FOR COLOR BALANCE. Gyan P. Madan. National Lithographer 67, No. 12, December 1960, pp. 40, 41, 107 (3 pages). By color balance is meant the satisfactory rendering of grays or neutrals. Described is a technique for making masked separations from an LTF or Kodak gray scale and checking the positives on the densitometer for balance. The plotting of curves to determine this is explained. This is followed by platemaking and printing with a balanced set of process inks. Further densitometer control while printing, checking of printed result and plotting of curves for analysis is explained. 4 Diagrams, 3 References.

655.302

HALFTONE PRODUCTION PROBLEMS WITH CONTACT SCREENS. Dick Arden. The Graphic Arts Monthly 32, No. 12, December 1960, pp. 76, 8, 80, 2, 4, 112 (6 pages). A question-answer presentation (of 30 questions) of the answers to a number of problems. Examples: influence of paper to be used on shooting of halftones; influence of ink; use of flash; screen angle; duotones; use of gray scale; etc.

655.302

PHOTOGRAPHIC COLOR SCANNER. Erwin S. Koval. Printing Magazine 84, December 1960, pp. 70-71 (2 Pages). Report based on four months' use of the first Autoscan installation in the U. S. Results are reported as better than anticipated and giving 80% of the required correction. Operation is described briefly. One limitation is that it handles reflection copy only. 5 Illustrations.

655.302

PATTERN IN HALFTONE REPRODUCTION. F. G. Wallis. The Litho-Printer 3, No. 12, December 1960, pp. 667-668 (2 pages). Moire patterns can result from rescreening, or from originals with patterns such as in textiles, embossed surface photo papers, etc. Five commonly used ways of overcoming moire are discussed: 1. Dot-for-dot reproduction, 2. Grain Screens, 3. Out-of-focus effects, 4. Vibrating the camera, 5. Diffusion. Three pieces of equipment are described which can help on rescreening: 1. The Klinish-Variomat, 2. An oscillating glass plate by Jena Optical Works, 3. The Canon Contimat Filter.

771.531

AN INTERESTING REPORT ON TESTS WITH VARIABLE CONTRAST FILMS: AGFA KK. H. M. Cartwright. The Litho-Printer 3, No. 12, December 1960, pp. 663, 665 (2 pages). This film has two emulsions, orthochromatic and panchromatic, the latter having the lower speed and higher contrast. Controlled, divided exposures with and without a red filter enable much control over contrast. Author speculates on choice of emulsions and work to be accomplished with the films. Characteristic curves show variation in gamma possible. A table gives relative red filter exposures for different originals for litho and gravure. 2 Graphs, 1 Table.

655.302

EXAMINATIONS INTO THE RATIONALIZATION OF COLOR PHOTOGRAPHY - Part I - ON THE MASKING OF TRANSPARENCIES. K. H. Schirmer, W. Schroder and E. Wohlers. Deutsche Gesellschaft Fur Forschung in Graphischen Gewerbe - Munich 1959 (In German). Pamphlet - 6 x 8¼" - 72 pages. Paper covers contents as follows: 1. Introduction - 2. The Color Quality of Transparancies - 3. Help in Handling Transparancies - 4. The Adjustment of the Color Separations - 5. Errors in the Color Separations - 6. Determining the Necessary Color Correcting Masks - 7. Practical Possibilities of Masking - 8. Comparison of the Various Masking Procedures with Single Stage Masks - 9. Improving the Masking Methods through the use of Combined Masks. 29 Charts, 11 References.

655.332:655.302

POLICROM CONTACT SCREENS. F. G. Wallis. The Litho-Printer 3, No. 6, June 1960, pp. 305 (1 page). Brief descriptions of a line of Italian contact screens in gray and magenta. An interesting screen is a bicolor screen for gravure having black line rulings to give the necessary surface to support the wiping mechanism on the press, plus a magenta screen to give variation of tone.

PLANOGRAPHIC PRINTING PROCESSES

655.324

NEW LOOK AT ZINC. Dr. Paul J. Hartsuch. Modern Lithography 28, No. 12, December 1960, pp. 38-9 (2 pages). (From an address delivered at the annual NAPL Convention, October 1960). Program includes work on zinc grain, surface treatments, alloys for reduction of stretch, and a zinc wipe-on plate. Results of work are described briefly. Success has been achieved on these projects, especially with the new alloy to prevent stretching.

655.325

HOW TO APPLY LACQUER TO DEEP-ETCH ALUMINUM PLATES. Charles W. Latham. The Inland and American Printer and Lithographer 146, No. 3, December 1960, pp. 64-5, 110 (3 pages). Lacquering will make the images more ink receptive and more resistant to blinding. Good lacquer will stand repeated light etching and gumming without ink protection. Step-by-step directions are given, also suggestions on equipment and tests.

655.326

INVESTIGATIONS OF TINTING AND SCUMMING IN OFFSET PRINTING ON COATED PAPERS. A. Arnamo, The Litho-Printer 3, No. 6, June 1960, pp. 313, 15, 16, 19 & 21 (5 pages). This is a reprint of the Arnamo paper given at the "Fifth International Conference of Printing Research Institutes" held at Lehigh University in June, 1959. Areas covered include: Studies in practical printing, Laboratory investigations, Non-printing investigations, Multilith investigations, and Conclusions. An excellent expository article on the subject of tinting and scumming.

655.326

DAMPING PROBLEMS. C. Stewart. The Litho-Printer 3, No. 6, June 1960, pp. 287, 289 (2 pages). The importance of control of ink-water balance is pointed out. This is discussed in relation to type of plate and damper roller coverings. The importance of using the minimum of water is stressed.

655.324

REVIEW OF LATEST PLATEMAKING PROCESSES COVERS WIDENING CHOICE RANGING FROM PAPER TO COPPER. John D. Payne. New England Printer and Lithographer 23, No. 9, October 1960, pp. 30, 32 (2pages). Excerpts from a talk by Albert R. Materazzi. A brief listing of plates available today, chiefly by preparation methods, with some mention of manufacturers. Sizes available and other data are given. Types include direct image paper masters, photographic presensitized on paper, presensitized, wipe-on plates with mention of newest developments by LTF in wipe-on Zinc and PDI reuseable wipe-on plates on aluminum, surface plates, deep-etch plates and hard metal or polymetallic plates.

PAPER AND INK

655.03

GLOSSARY - TECHNICAL TERMS IN BOARD, PAPER AND COVER MATERIALS. Anon. Book Production, December 1960, pp. 23-A (1 page). Terms are limited to those used in specification and purchase of these materials.

655.306: 655.302; 655.04

QUALITY CONTROL IN AERONAUTICAL CHART REPRODUCTION. Otto Stoessel, Jr. Proceedings of the 10th Annual Conference Research and Engineering Council of the Graphic Arts Industry, Dayton, May 1960, pp. 35-48 (14 pages). The problems of close color control are explained. Paper is tested according to TAPPI Standards. Ink properties are subject to an elaborate control using a densitometer and 11 filters on a simulated print sample. Other properties such as opacity and light fastness are also checked. A statistical method of watching these properties is given. Two full page work sheets are shown.

655.326

BALANCED OFFSET PROCESS INKS. Ian Harris. The Litho-Printer 3, No. 6, June 1960, pp. 293, 296 (2 Pages). The work of Hartsuch and Preucil in describing "balanced" inks is mentioned. By means of calculations and bar diagrams the relation of balanced inks to single stage masking is pointed out. Evidently such inks are not yet available in Britain. 1 Illustration.

676.2:655.08

THE SCOPE OF CONTROL BY COMPUTERS IN THE PAPER INDUSTRY. T. M. Stout. Paper and Print 33, No. 4, Winter 1960, pp. 423,24,27,28,29,31 (6 pages). The digital control computer is a new tool which may prove useful in the pulp and paper industry as a supplement to conventional instrumentation. Capable of dealing rapidly and consistently with complex relationships, the computer finds application to processes meeting several obvious technical and economic criteria. These requirements include frequent disturbances, conflicting objectives, numerous inter-related variables, and a potential for profit margins which can justify the investment in new equipment. A computer can be used in several ways; as a data processing device which receives signals from process instruments and presents computed values for use by an operator, as a sequence controller which obtains most of its data from an operator and then exercises direct control over the process, or as a full-fledged controller which notes process conditions and takes action without operator intervention. Diagrams are included to show how a computer is integrated with process instruments and how its various functions are programmed. Design of a computer control system is a difficult task which requires identifying process boundaries, stating process objectives in economic terms, developing control relationships, investigating instrumentation problems, and working out procedures for normal and special operating conditions. Developing control relationships is the hardest part of the job. The equations needed by the computer can be derived from past operating data, from theoretical considerations, or -- preferably -- from a combination of data with theory. These steps have been carried out successfully in other industries. With recent advances in the technology of pulp and paper, it seems probable that the problems can be solved in this industry as well.

676.27

pH SMEAR TECHNIQUE. Anon. The Lithographer and Offset Printer 56, No. 12, December 1960, pp. 11-12 (2 pages). A special set of standard glasses for printers and papermakers using the 'smear' technique for measuring the pH of paper has been introduced by PATRA. These overcome previous difficulties with differences between colors of indicators on paper and in solution. Some suggestions as to their use are given.

676.286

TODAY'S NEWS PRINTED ON YESTERDAY'S PAPER. Anon. Printing World 167, No. 23, December 7, 1960, pp. 665 (1 page). Story on a deinking process developed by the Newark (N. J.) News based on a new chemical which it is claimed, removes the ink from old newspapers which have been soaked in water. Distinct economies are claimed. Plants are projected for northern New Jersey and the Chicago area.

667.5

GLOSS INKS. J. D. O'Connor. American Ink Maker 38, No. 12, December 1960, pp. 39, 41 (2 pages). The various ingredients of an ink: pigments, varnish, reducers, compounds and driers, are examined in their relation to the gloss of the ink. Grinding factors, such as proportions of pigment and varnish during a grind are discussed.

655.307

* METHOD OF AND APPARATUS FOR CLEANING AND CONTROLLING PAPER IN PRINTING PRESSES. Charles C. Doyle and Helen Lefton, assignor to the J.E. Doyle Company, Cleveland, Ohio. (*U.S. Patent 2,961,952). Official Gazette, Vol. 760, No. 4, November 29, 1960, pp. 1128-29. 1. The method of cleaning and preventing wrinkle formations in a sheet of moving paper being fed through a printing press comprising exerting a sheet cleaning suction across the surface of the sheet to be printed transverse to the direction of movement of the sheet and at a feed roll and regulating the degree of suction on the moving sheet so that a greater suction effort is exerted at the center of the moving sheet than upon the side portions of the sheet, thereby to aid removal of any air pockets occurring between the underside of the sheet and feed roll, while directing over the surface of the sheet to be printed in directions obliquely outwardly relative to the central region of the sheet but toward the direction of sheet movement streams of air caused by said suction, and then brush-wiping the impression side of the sheet whereby brush-loosening of deleterious matter is effected upon the impression side of the sheet after any air pockets have been eliminated from the underside of the sheet.

655.326: 655.329

WEB OFFSET INK PROBLEMS. Thomas Taylor, Chairman, et al. National Lithographer 67, No. 12, December 1960, pp. 46, 7, 63, 7, 8 (5 pages). Report of a panel discussion at P. I. A. Web Offset Division 1960 meeting. Some of the points covered include ink-water balance; effect of speed on ink "flying"; performance of damping systems at 2500 ft. per min.; performance of a Dahlgren dampening system on a web offset press; use of alcohol in a conventional dampening system; and the need for less dampening due to plate developments and the possibility that this moisture can be carried on or in the ink.

655.306:655.84

PAPERS FOR GREETING CARDS. William H. Bureau. The Graphic Arts Monthly 32, No. 12, December 1960, pp. 42, 44 (2 pages). A little greeting card history is given, leading up to the present half billion dollar industry. Most are printed by lithography. Most commonly used paper is a PAPETERIE, a chemical wood fiber book type paper. Various finishes are used. Other papers used are coated, text, offset book and bristols.

655.309

PRINTING FROM PAPER IN ROLLS. Charles V. Morris. Printing Magazine 84, No. 13, December 1960, pp. 42, 43, 50 (3 pages). Helpful hints cover ordering instructions, estimating to allow for spoilage, handling paper in rolls, and defects to be expected because roll paper cannot be inspected as is sheet. A suggested order form is given. 1 Illustration.

LITHOGRAPHY - GENERAL

655.89

LITHOGRAPHING ON ALUMINUM FOIL - NEW DIMENSION IN PRINTING. Kenneth M. Greenwell. The Inland and American Printer and Lithographer 146, No. 3, December 1960, pp. 51-53 (3 pages). Aluminum foil for packaging end use is treated to give a "dead soft" temper to give good folding characteristics. Most common thickness for packaging is .00035 in. Foil can be had Matte One Side, or Two Sides Bright. Coatings are applied for the specific type of printing and nitrocellulose or vinyl are suitable for lithography. Laminated paper backings are used for some forms of printing. A number of specific working suggestions are given. 4 Illustrations.

655.329: 655.7

BOOKS BY WEB OFFSET. Anon. Book Production, December 1960, pp. 39-A (1 page). Gives essential production data on the web offset process relating to book production. A table gives press sizes and signature sizes with various folds.

655,328

*DAMPENING APPARATUS FOR OFFSET PROCESS PRINTING PRESSES. Leonard G. Erzinger. (U.S. Patent 2,960, 929 Filed June 15, 1959, Ser. No. 820, 414) Official Gazette, Vol.760, No. 4, November 22, 1960, p. 835. 1. In a photo-offset printing press, a plurality of inking rollers, said rollers being disposed in parallel relation to each other, all on horizontal axes of rotation, a horizontally movable water feed means mounted adjacent at least one of said rollers and adapted to feed water thereto, and a horizontally extending rake situated adjacent said roller and said water feed means, said rake being provided with a horizontally extending bar element and a plurality of vertically extending, horizontally spaced teeth projecting from said bar element, said rake being mounted on vertically movable supports for movement into three positions which may be assumed selectively, said rake being moveable; into one of said positions between said water feed means and said inking roller wherein said bar element serves as a barrier preventing the water fed by the water feed means from reaching said roller, said rake being movable into a second of said positions between said water feed means and said roller, wherein the teeth projecting from said bar are disposed in the path of the water, said teeth serving as barriers preventing the water which impinges upon them from reaching said roller, the spaces between said teeth serving as passages for the remainder of the water fed by said water feed means, enabling said water to reach the roller, thereby permitting a partial flow of water to the roller, and said rake being movable into the third of said positions wherein both the bar and its teeth are entirely removed from the path of the water from the water feed means to the roller, thereby permitting a full flow of water to reach the roller.

655.322

BLACK AND WHITE ... THE FORGOTTEN LITHO PRODUCT. Tom J. Morgan, Jr. Modern Lithography 28, No. 12, December 1960, pp. 32, 3 & 115 (3 pages). Advances resulting from research and experimentations make possible achievement of higher standards of quality. Quality has the best chance in a small shop. Suggestions on quality in black and white are summed up in "Use the full scale your halftone screen and ink film will allow." How to do this is discussed. (From a talk at the NAPL Convention, Chicago, October, 1960)

655.307: 655.328

LITHO PRESS WASH-UP - No. 26 of the How and Why of Carton Lithography. J. Jachimiec. Boxboard Containers 78, No. 816, December 1960, pp. 50-51 (2 pages). Time and care in press wash-up influence quality of results and maintenance costs. The operation of press wash-up is described in detail with special emphasis on safety.

655.329: 655.7

CAN I PRINT MY DAILY PAPER OFFSET? Anon. ANPA Research Institute Inc. Mechanical Bulletin, No. 732, December 16, 1960, pp. 181-83 (3 pages). A study based on a plant printing 22 separate weekly newspapers, with runs of from 2,500 to 7,000. Full data are given on equipment and methods with cost per page data for letterpress and web offset printing (including composition and platemaking). Figures are given on capital investment and manning.

655.328

* DAMPER FOR LITHOGRAPHIC PRESS. Harry J. Quinn (Martins Ferry, Ohio) (U.S. Patent 2,961,949 - Filed January 6, 1959, Ser. No. 785,152) Official Gazette, Vol 760, No. 5, November 29, 1960, p. 1127. 1. The combination with the dampening roller of a lithographic press, of an apparatus for supplying dampening material to said lithographic press, comprising a hollow shaft having a plurality of radial openings arranged in parallel spaced relation with respect to one another, a sleeve bearing mounted at each end of said hollow shaft in which said hollow shaft is journaled, a tube encompassing said hollow shaft and supported at each end by said sleeve bearing, said tube having a plurality of radial openings through which water under pressures passes from said hollow shaft, an absorbent covering secured on said tube and adjustable mechanism providing a mounting for said hollow shaft for moving said apparatus onto and out of contact with said dampening roller, a gravity feed tank adapted to hold water, flexible tubing and piping connecting said tank to each end of said hollow shaft, thereby providing means for water to be supplied to said absorbent covering, and pipes connected with said hollow shaft for directing air under pressure into said shaft forcing water through said opening and absorbent covering.

655.5: 655.329

HOW A SWITCH TO WEB-OFFSET BY THE ST. LOUIS DAILY RECORD INCREASED PRODUCTION AND QUALITY. Lucius B. Morse. The Graphic Arts Monthly 32, No. 12, December 1960, pp.66,68, 70,72 (4 pages). Excellent quality and increased production followed a shift from flatbed letterpress to web-offset. Daily Record Co. of St. Louis prints two daily business papers and several suburban weeklies. The press is the first Goss Suburban built. The gradual changeover is described. Hot metal composition and paste-up of proofs is used. Other production methods are described. 1 Illustration.

655.326

OFFSET BLANKET LIFE EXTENDED VIA REJUVENATION PROCESS. Anon. Printing Magazine 84, No. 13, December 1960, p. 65 (1 page). Brief reports on a service for rejuvenation of blankets by chemical and mechanical treatments.

655.325

* PLANOGRAPHIC PRINTING. Charles H. Van Dusen, Jr. and Francis R. Howe (assignors to Addressograph-Multigraph Corporation, Wilmington, Delaware). (U.S. Patent 2,958,146 - Filed April 22, 1955, Ser. No. 503, 183) Official Gazette, Vol. 760, No. 1, November 1, 1960, p. 27. 1. A method for applying a solution to the imaged face of a lithographic printing plate comprising, dampening a fabric facing selected from the group consisting of tricot knitted polyhexamethylene adipamide and polyethylene terephthalate and cellulose acetate Rayon,carried on a highly resilient backing member, with said solution and wiping the imaged face of the plate therewith.

655.329

WEB OFFSET BIG AND SMALLER - WHAT's HAPPENING TO IT? Hyman Safran. The Inland and American Printer and Lithographer 146, No. 3, December 1960, pp. 74-75 (2 pages). A review of the present status of web offset mentioning some recent press developments and installations. 2 Illustrations.

655.03: 655.329

WEB-OFFSET TERMS. Anon. Modern Lithography 28, No. 12, December 1960, pp. 42,3,109 (3 pages). A glossary of terms peculiar to this type of press. A diagram showing the major elements of the press and the path of the web illustrates many of the terms.

GRAPHIC ARTS - GENERAL

655.86

WHAT'S NEW IN MAP PRODUCTION? H. Baumann. The Litho Printer 3, No. 12, December 1960, pp. 672, 675 (2 pages). (A report on the 2nd International Course for Map Printing and Reproduction, October 1960, Munich,Germany. Abstracts of the papers presented there are given in the article, given here by title and author only:

Dr. O. Deile - "Fundamentals and Present State of Electrostatic Photography and Printing Processes"
John T. Pennington - "Electrostatic Processes for Map Reproduction"
Dr. H. Naumann - "The Image Quality of Process Camera Lens Systems"
J. Folkers - "Intricate Line Reproductions in Map Reproduction Using Phototechnical Dry Material"
H. Diehl - "Problems in Contact Screening, Studies of Screen Dot Unsharpness."
Dr. A. J. W. Sweerman - "IGT -PATRA - Contact Screen"
Dr. R. Blank - "Dimensional Stability of Plastic Films Coated with Photographic Emulsions."
Dr. J. Becke - "Dimensional Stability of Plastic Films Coated with Chromate Printing Coatings."
H. Stumpf - "Glass, an Essential Base Material in Map Reproduction Process Technique."
Professor Dr. J. Albrecht and W. Rebner - "Recent Findings on the Manufacture and Application of Offset Printing Plates."
E. Schumacher - "Applications of Photo-mechanic Line Thickness Conversion in Map Reproduction."
Professor Dr. Albrecht - "Standardization in Graphic Arts with Special Consideration of Map Reproduction."

655.302

ULTRASONIC EQUIPMENT CLEANS PLATES. Anon. New England Printer and Lithographer 23, No. 9, October 1960, pp. 73, 75 (2 pages). Boston firm was having trouble getting letterpress printing plates clean enough for Brightype conversion. They found commercial ultrasonic cleaning equipment did a quicker and better job than hand scrubbing and other methods tried. 1 Illustration.

655.7: 655.28

NATIONAL GEOGRAPHIC USES LINOFILM IN PUBLISHING 400-PAGE BOOK. Anon. Photoengravers Bulletin 50, No. 5, December 1960, p. 53 (1 page). Brief story on the use of the first Linofilm off the assembly line. Powderless etch engravings were used for text. The book "Wild Animals of North America" contains 400 pages, had a first printing of 200,000.

655.314: 655.312

PROGRESS REPORT ON THE WRAP-AROUND PLATE. Arthur N. Knol, Jr. The Electrotypers & Stereotypers Magazine 46, No. 12, December 1960, pp. 34-36 (3 pages). Brief report on experiments at W. T. Hall Printing Co. who converted an old rotary press to take DuPont Dyeril photopolymer plates. On the first run with 16 plates, makeready was reduced from 12-14 hours to 2-3 hours. On a 1,600,000 run, 1 plate wore out at 41,000, three plates lasted out the run, average run per plate was 736,000.

655.07

WHAT IS THE EDUCATION COUNCIL OF THE GRAPHIC ARTS INDUSTRY ... AND WHAT DOES IT DO? Samuel M. Burt. The American Pressman 70, No. 12, December 1960, pp. 12, 13, 15 (3 pages). The Council was formed in 1951 to coordinate educational activities and provide industry-wide leadership in the field of education. Four major goals are listed as: 1. Help improve printing education programs in high schools and colleges, 2. Represent printing interest in national education programs, 3. Interest qualified young people in choosing printing as a life work, 4. Provide programs and materials to assist employers in selecting qualified personnel. Seven different forms of current activities are listed and explained.

655.5: 655.7

PAPERBACK BOOK PRINTING. Marquis M. Morse. Share Your Knowledge Review, No. 3, December 1960, pp. 16-19 (4pages). (From a talk presented at the 62nd Annual Convention, International Association of Electrotypers and Stereotypers). A discussion of trends in the publishing and printing of the lower priced, mass market, paper bound book. Prices have gone up. Earlier books were reprints, that source is about exhausted and now new books come out in both hard bound and paperbacks, or paperback alone. Many classics of literature now sell in this mass market. Technical developments have been in the rubber plate printing and perfect binding and these developments continue.

655.255

MISCELLANEOUS DUTIES OF THE PROOF-READER. L. W. Wallis. Print in Britain 8, No. 8, December 1960, pp. 253-54 (2 pages). Some of these are: putting poorly prepared copy in good condition for the compositor; correcting for uniformity of style; typographical presentation; also tables, illustrations, captions and indexes.

655.89

BRAILLE PRINTING IS MADE SIMPLER & CHEAPER BY SOLID DOT METHOD. Anon. The Litho-Printer 3, No. 12, December 1960, pp. 670-671 (2 pages). The Royal National Institute for the Blind has perfected a new method for printing Braille. This involves depositing dots of specially formulated PVC paste on paper and heating to set the paste. A stencil printing method is used with .010 in. zinc stencils, .0035 to .0045 in Kraft paper web printed and bossed directly through an infra-red dryer. As example of the printing on both sides of the paper is included with the article. 5 Illustrations.

655.02

THE MEANING OF PREVENTIVE MAINTENANCE TO THE PRINTER. John A. Keller, III. Author presents a plan for the installation of a preventive maintenance program. The major sections of this program are: Lubrication, Good Housekeeping, Inspection and Provision for Overhaul and Record Systems. Each of these is gone into in a thoroughgoing manner with numbered steps for checking purposes, organization chart to fix responsibility and examples of forms for use in record keeping. Plaid Proofs - Winter Issue 1960, pp. 3-24 (21 pages).

655.28

GUIDE TO COLD TYPE. Anon. Book Production, December 1960, pp. 41-A (1 page). Brief description and data on 17 different cold type systems from the most complex body type setter to simple table top display equipment and typewriters. Data include such items as sizes and number of faces available, speed of operation, etc.

655.7

CANADIAN EXPECTS TO REVOLUTIONIZE BOOK PRINTING. Anon. The Inland and American Printer and Lithographer 146, No. 3, December 1960, p. 82 (1 page). Brief description of a novel printing unit for books, calender memo pads, appointment books, diaries, etc.

having a multiplicity of pages in sequence to be printed and collated. The heart of the idea appears to be the use of rubber printing plates mounted in proper sequence on an endless chain. Said to be ideal for paperback books, can be adapted for sewn signature binding. 2 Illustrations.

655.04: 655.08

WHAT INSTRUMENTS ARE NEEDED FOR Q.C.? Louis D. Pollner. Modern Lithography 28, No. 12, December 1960, pp. 40, 1, 113 (3 pages). (From an NAPL address delivered as part of a panel on Quality Control). Much of the control is aimed at incoming paper stock with emphasis on moisture content and flatness of stock. Sensitometer control of ink color is mentioned. For camera room, sensitometer and light integrator; in the plateroom, the LTF sensitivity guide and a 50X magnifier; for the plate room, register marks and the LTF register rule are used.

655.04

SAMPLING VERSUS 100 PERCENT INSPECTION. O. H. Somers. Proceedings of the 10th Annual Conference Research and Engineering Council of the Graphic Arts Industry, Dayton, May 1960, pp. 11-18 (8 pages). Statistical quality control methods are explained in terms of graphic arts material and products. Relationship with suppliers on control of properties of incoming materials is discussed.

655.04

EDUCATING YOUR PERSONNEL IN QUALITY CONTROL. O. H. Somers. Proceedings of the 10th Annual Conference Research and Engineering Council of the Graphic Arts Industry, Dayton, May 1960, pp. 19-26 (8 pages). Simple application of sampling and control chart techniques accomplish 85 to 90 % of what can be done. These points are explained with illustrative examples.

655.04

QUALITY CONTROL IN PRINTING OPERATIONS - A CASE HISTORY. Russell K. Johnson. Proceedings of the 10th Annual Conference Research and Engineering Council of the Graphic Arts Industry, Dayton, May 1960, pp. 27-35 (9 pages). Quality control is like vaccination, a prevention instead of a treatment. The training of craftsmen to accept statistical quality control proved difficult. Paper and ink properties were subjected to control. Color was a problem, a densitometer helped on that. Specification also helped. Specific jobs are cited as examples.

655.04

HOW TO DETERMINE QUALITY LEVELS. Dr. Albert B. Bishop. Proceedings of the 10th Annual Conference Research and Engineering Council of the Graphic Arts Industry, Dayton, May 1960, pp. 61-76 (16 pages). Mathematical or statistical methods of quality control are explained and terms illustrated with the aid of simple cartoon type diagrams and graphs. Some terms illustrated and explained are: random variation, variables and attributes, fraction defective, etc. 11 Illustrations.